

Chapter 1

PURPOSE OF AND NEED FOR ACTION

1.0 INTRODUCTION

Fidelity Exploration & Production Company (Fidelity) proposes development of coal bed natural gas (CBNG) in its Tongue River-Deer Creek North and Tongue River-Pond Creek Project areas (Deer Creek North POD, Pond Creek POD or PODs). The project area is located within the CX Field (approved by the Montana Board of Oil & Gas Conservation), Big Horn County of southeastern Montana, T. 8 and 9 S., R. 39, 40 and 41 E., (Map 1.3-1, Map 1.3-2, Map 1.3-3 and Map 1.3-4). Fidelity's proposal includes the development, operation, and reclamation of CBNG wells and various facilities on leased lands (surface and /or oil and gas mineral estate) in the Deer Creek North and Pond Creek PODs. The proposed project is located on private, state and BLM administered surface. A more detailed description of the Plans of Development and Proposed Action is found in Chapter 2.

This Environmental Assessment (EA) was prepared by the Bureau of Land Management (BLM), in cooperation with the Montana Department of Environmental Quality (MDEQ) and the Montana Board of Oil and Gas Conservation (MBOGC). The EA analysis tiers to and incorporates by reference the information and analyses contained in the *Montana Statewide Oil and Gas Final Environmental Impact Statement and Amendment of the Powder River and Billings RMPs* (MT FEIS) approved by MBOGC on March 26, 2003, by BLM on April 30, 2003, and MDEQ on August 7, 2003. The EA addresses site-specific impacts and mitigation measures that are not covered in the MT FEIS. The EA completes the environmental review requirements of NEPA for BLM and of MEPA for MBOGC and MDEQ.

1.1 PURPOSE OF AND NEED FOR ACTION

The purpose of the Proposed Action is to develop the CBNG resources that may be found in coal seams on federal and private leases within the project area, consistent with the MT FEIS. The need for Fidelity's Plans of Development is to ensure that CBNG development of its leases occurs in an orderly, efficient and environmentally responsible manner that provides measures to protect the environment and surface owner assets.

1.2 CONFORMANCE WITH THE APPLICABLE LAND USE PLAN

BLM considers this proposed action under the requirements of the Mineral Leasing Act (MLA), the Federal Land Policy Management Act (FLPMA) and the BLM regulations at 43 CFR 3160 and other applicable laws and regulations.

As required by 43 CFR 1610.5, the Proposed Action is in conformance with the terms and the conditions of the BLM 1984 *Powder River Resource Management Plan* (RMP), as amended by the Miles City District Oil and Gas FEIS/Amendment (BLM, 1994) and the *Montana Statewide Oil and Gas FEIS/Amendment of the Powder River and Billings RMPs* (BLM, 2003).

This site-specific EA tiers to and incorporates by reference the information and analyses contained in the *Montana Statewide Oil and Gas Final Environmental Impact Statement and Amendment of the Powder River and Billings RMPs* (MT FEIS) approved April 30, 2003, pursuant to 40 CFR 1508.28 and 1502.21. This project EA addresses site-specific resources and/or effects that are not covered in the MT FEIS, due to its programmatic nature.

1.2.1 Other Relevant Documents

- Final Environmental Impact Statement and Proposed Plan Amendment for the Powder River Basin Oil and Gas Project (WY FEIS), April, 2003.
- EA's prepared by DNRC for beneficial use of produced water at the Spring Creek and Decker Coal Mines, December, 2002 and June, 2003 respectively.
- EA prepared by BLM for the Fidelity Badger Hills Plan of Development, approved February 9, 2004 (MT-020-2004-134).
- EA prepared by BLM, MDEQ and MBOGC for the Powder River Gas – Coal Creek Plan of Development, approved November 19, 2004 (MT-020-2004-58).

- EA prepared by BLM for the Fidelity Dry Creek Plan of Development, approved December 16, 2004 (MT-020-2004-298).
- EA prepared by BLM, MDEQ and MBOGC for the Fidelity Coal Creek Plan of Development, approved January 19, 2005 (MT-020-2004-297).
- EA prepared by MDEQ for the MPDES permit for discharge of produced water into the Tongue River, approved June, 2000.
- EA's prepared by MDEQ for the Montana Air Quality Permits (MAQP) Rancholme 21 Battery (MAQP #3334), Rancholme 14 Battery (MAQP #3383), Rancholme #2 Battery (MAQP #3388), Montana Royalty #3 Battery (MAQP #3386), and Decker #6 Battery (MAQP #3389), BCPL CX-35 (MAQP #3122), CX-24 (MAQP #3036), CX-14 (MAQP #3141), and CX-12 (MAQP #3387). In addition, an existing sales battery, BCPL Symons Central Compressor Station (MAQP #3250).

1.3 DECISIONS REQUIRED

1.3.1 Montana Department of Environmental Quality (MDEQ)

Air Resources Management Bureau

Potential decisions to be made by the Air Resources Management Bureau of the MDEQ include making determinations as to whether a Montana Air Quality Permit would be required for the proposed activities. However, the Administrative Rules of Montana (ARM), Title 17, Chapter 8, Subchapter 7 – Permit, Construction and Operation of Air Contaminant Sources, specifically exempts certain activities from the requirement to obtain a Montana Air Quality Permit (MAQP). ARM 17.8.744(1)(b) exempts mobile emitting units, including motor vehicles, aircraft, and other such self-propelled vehicles from obtaining a MAQP. In addition, ARM 17.8.744(1)(i) exempts drilling rig stationary engines and turbines that do not have the potential to emit more than 100 tons per year of any regulated pollutant and that do not operate in any single location for more than 12 months from obtaining a MAQP.

Any future development, such as the placement of compressor engines or turbines, would also require a permit determination from MDEQ. ARM 17.8.743 requires that a person may not construct, install, modify, or operate a new facility or emitting unit upon which construction was commenced, or that was installed after November 23, 1968, that is not specifically excluded under ARM 17.8.744, and that has the potential to emit more than 25 tons per year of any regulated airborne pollutant, other than lead, without first obtaining a MAQP.

Water Protection Bureau (WPB)

The MDEQ administers various environmental statutes in the state of Montana, including the Water Quality Act (75-5-101 et seq., Montana Codes Annotated), Clean Air Act (75-2-101 et seq., MCA), Hazardous Waste Act (75-10-401 et seq., MCA), and Solid Waste Act (75-10-201 et seq., MCA) and implementing regulation. In addition to these statutes, Department actions must also comply with the Montana Environmental Policy Act (MEPA) and the applicable implementing regulations.

The WPB issues wastewater discharge permits under the MPDES permit program pursuant to the 75-5-402, MCA of the Montana Water Quality Act (WQA) and Sections 402 and 303 of the federal Clean Water Act (CWA). Under the federal CWA, the Department is delegated to issue storm water permits, permit federal facilities and issue general permits, as well as individual permits to both public and private facilities. Pursuant to ARM 17.30.1372, the Department has issued a Public Notice (MT-05-05) stating that draft permits (MT0030457 and MT0030724) and supporting materials have been prepared and that a tentative decision has been made to issue two wastewater discharge permits to Fidelity Exploration & Production Co. One of these permits would be for untreated discharge occurring under a flow based system, the other would be for treated discharge.

The Department is also responsible for issuing federal CWA Section 401 certification for activities that are licensed or permitted by a federal agency and may result in a discharge to state waters. The Department has adopted administrative rules for the issuance of CWA Section 401 certifications at Title 17, Chapter 30, Subchapter 1 ARM. Pursuant to ARM 17.30.105(2)(b). It is the Department's intent to waive certification for this project because any discharge to state waters from this project will require MPDES permits.

1.3.2 Montana Board of Oil and Gas Conservation (MBOGC)

Decisions to be made by the Montana Board of Oil and Gas Conservation are whether to approve the Applications for Permit to Drill the fee wells or modify the proposals through the use of mitigation measures. MBOGC approved the Project Plan of Development boundaries and well spacing on February 12, 2004.

1.3.3 Bureau of Land Management

BLM must determine whether to:

- approve the proposed action,
- approve individual federal components of the proposed action (as presented in Table 2.5-1), or
- modify the proposed action with mitigation measures and monitoring activities that may be necessary for federal actions, in addition to those measures proposed by the operator.

BLM will not make decisions on construction, well drilling, completion and production for any private wells, or their supporting infrastructure. The MDEQ and MBOGC have jurisdiction over their individual components of this project.

The project maps (1.3-2, 1.3-3 and 1.3-4) shows each project boundary, existing and proposed wells, access roads, pipelines (water and gas), power lines, and the central gathering/metering/water processing facilities proposed within the POD areas.

1.4 ISSUE IDENTIFICATION

Relevant issues were identified through a project scoping letter dated February 9 and 15, 2005; technical staff review based on issues highlighted during the 2003 MT FEIS, the 2004 Tongue River-Badger Hills POD EA, the 2004 Powder River Gas-Coal Creek POD EA, the 2004 Tongue River-Dry Creek POD EA and the 2005 Tongue River-Coal Creek EA; from landowner, agency and tribal consultation; and site inspections of the project area. Relevant issues include the following:

- Air quality effects from CBNG development activities including drill rig emissions (exhaust emissions as well as dust generated by drilling the wells) and fugitive dust (construction activities as well as road dust) and compliance with all applicable air quality rules and standards, including ambient air quality standards
- Cumulative Impacts of this action when considered with past, present and reasonably foreseeable future actions
- Noxious weed introduction and proliferation
- Drawdown of groundwater table and effects to springs and wells (pumping water out of coal seams)
- Habitat fragmentation and disturbance effects to wildlife habitat
- Public Health and Safety
- Potential for methane migration and methane drainage
- Disturbance and reclamation activities associated with the PODs
- Surface water quality degradation
- Construction, management and monitoring of produced water storage sites and irrigation sites
- Cultural Resource impacts
- Water Well Mitigation Agreements
- Coal Mine/CBNG conflicts (ground water recovery and overlap in development areas)

1.5 FEDERAL, STATE AND LOCAL PERMITS OR REQUIRED CONSULTATION

Montana Air Quality Permits

This EA is being prepared in conjunction with the MDEQ, which has jurisdiction over sources of air pollution in the State of Montana. Therefore, the Air Resources Management Bureau must be consulted to make permit determinations regarding the use of air contaminant sources that would be used as part of the proposed CBNG exploration and development (drill rigs, emergency flares, etc.), as well as installation of compressor engines/turbines.

Based on information provided by Fidelity, the drill rig proposed to be used would utilize a 400-horsepower (hp) diesel engine. The MDEQ completed an emission inventory using the information provided by Fidelity and emission factors obtained from the United States Environmental Protection Agency's (EPA) Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume I. The MDEQ determined that a MAQP is not required for the exploration portion of the Coal Creek Project because the emission potential of the entire project is well below the MAQP threshold of 25 tons per year, except for nitrogen oxides (NO_x) emissions from the drill rig stationary engine. However, ARM

17.8.744(1)(i) exempts drill rigs that have the potential to emit less than 100 tons per year and that do not operate in the same location for more than 12 months from the need to obtain a MAQP. MDEQ's permit determination is conservative because drilling activities were calculated based on 8,760 hours per year and the entire exploration portion of the project will be completed within approximately 3 years. Technically, for an air quality permit determination, each hole would be considered a separate project. Considering emissions from the entire project ensures that the analysis used to make the air quality permit determination for exploration is conservative. The emission potential of the proposed exploration project is summarized in Table 1.5-1.

1.5-1 Emission Inventory - Air Quality Permit Determination - Exploration

Emission Source	Tons/Project						
	TSP	PM ₁₀	PM _{2.5}	NO _x	VOC	CO	SO _x
Drill Rig(s) – (Engine Emissions)	0.00	0.00	1.81	25.54	2.03	5.50	1.69
Drill Rig(s) – (Drilling Emissions)	2.44	2.44	2.44	0.00	0.00	0.00	0.00
Fugitive Dust – (Disturbed Acres)	26.58	26.58	26.58	0.00	0.00	0.00	0.00
Vehicle Traffic (non-paved roads)	13.10	5.90	5.90	0.00	0.00	0.00	0.00
Total	42.12	34.91	36.72	25.54	2.03	5.50	1.69

Although MDEQ determined that a MAQP is not required for the proposed exploration project, MDEQ would need to be contacted to determine whether a MAQP would be required for any future development, such as installing compressor engines, turbines, or any other sources of air contaminants that are outside the scope of the proposed project or that do not already have a valid MAQP.

Several facilities that would be used to extract and transport the CBNG have already received MAQPs from MDEQ. Based on information provided by Fidelity, for Deer Creek North five permitted field compressor station would be used to extract the gas and for Pond Creek four permitted field compressor station would be used to extract the gas. The field compressors that would be used for Fidelity's Deer Creek North POD are the Bitter Creek Pipelines, LLC (BCPL) Rancholme 21 Battery (MAQP #3334), Rancholme 14 Battery (MAQP #3383), Rancholme #2 Battery (MAQP #3388), Montana Royalty #3 Battery (MAQP #3386), and Decker #6 Battery (MAQP #3389). The field compressors that would be used for Fidelity's Pond Creek POD are the BCPL CX-35 (MAQP #3122), CX-24 (MAQP #3036), CX-14 (MAQP #3141), and CX-12 (MAQP #3387). In addition, an existing sales battery, BCPL Symons Central Compressor Station (MAQP #3250), would also be used for Fidelity's Deer Creek North and Pond Creek PODs. MDEQ previously determined that all of the field compressors and the sales battery require MAQPs. Emissions from the compressor sites will be analyzed for each alternative.

Montana Pollutant Discharge Elimination System Permit (MPDES permit)

The MDEQ has been granted primacy from the United States Environmental Protection Agency (EPA) for issuing waste water discharge permits for such discharges into state waters. Fidelity's existing MPDES discharge permit (MT0030457), and a new permit for treated discharges (MT0030724) would be used for this project. The existing permit currently allows for the discharge of up to 1,600 gallons per minute (gpm) of untreated CBNG water to the Tongue River. This existing permit is under review, and may be modified to operate under a flow based system (as described in Chapter 2, Alternative B). The proposed treatment permit (MT0030724), would allow for up to 1,700 gpm of discharge to the Tongue River.

On April 27, 2005 the Department issued public notice MT-05-05, stating the Department's intent to issue a wastewater discharge permit to Fidelity Exploration and Production Company. The notice stated that the Department had prepared a draft permit, fact sheet, and environmental assessment and would hold two public hearing on this matter. Public hearings were conducted on May 31, 2005 at the Bicentennial Library in Colstrip MT and at the Blessed Sacrament Catholic Church in Lame Deer MT on June 1, 2005. The notice required that all comments received or postmarked by June 10, 2005 would be considered in formulation of a final determination and issuance of the permit. The normal 30-day comment period was extended by 15 days, because of requests made to the Department.

The Department received 27 letters from various agencies, organizations, and individuals on the MPDES permit. An additional 35 comments were obtained from two public hearing. Contained in the responses are 257 significant comments that that represent 76 unique issues to be responded to. In accordance with ARM 17.30.1374, transcripts of the public hearings have been prepared. The Department has considered these comments in preparation of the final permit and decision.

Federal 401 Certification

§401 of the Federal Clean Water Act (CWA) states that "Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate... that any such discharge will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of this Act... If the State... fails or refuses to act on a request for certification, within a reasonable period of time (which shall not exceed one year) after receipt of such request, the certification requirements of this subsection shall be waived with respect to such Federal application. No license or permit shall be granted until the certification required by this section has been obtained or has been waived as provided in the preceding sentence." (CWA §401.a.1)

According to Montana's 401 Certification procedures (ARM 17.30, Sub-Chapter 1), an application is deemed complete if the department has not made a determination within 30 days after receipt of the application or, subsequent to receipt of the initial application, within 30 days of receipt of materials submitted by the applicant that supplement the application (ARM 17.30.103.6). These procedures also specify that "If the department does not notify the applicant of a tentative determination within 30 days after the application is deemed to be complete, the department is deemed to have waived certification." (ARM 17.30.106.1).

Submitted on March 18, 2005, supplemented June 17, 2005, the Department received requests for 401 certification for the Deer Creek North and Pond Creek PODs. On July 14, 2005, the Department declared it was withholding section 401 certification due to deficiencies in the submittal package. The Department does not intend to waive certification for these PODs, but plans to respond to these requests, upon completion, within the 30-day review period. At this time, the 401 certification deficiencies have not been rectified.

Storm Water Discharge Permit

The owner or operator of any activity, which disturbs greater than one acre of land and has the potential to discharge storm water runoff to state waters, including ephemeral drainages or intermittent tributaries, must submit a Notice of Intent (NOI) under the "General Permit for Storm Water Discharges Associated with Construction Activity" ("General Permit" – MTR100000). The General Permit requires that the owner or operator develop a Storm Water Pollution Prevention Plan (SWPPP), including BMP's, maintenance, self inspection and record keeping procedures in order to prevent significant sediment from entering state waters and causing a violation of any state water quality standard. The NOI is effective upon receipt by the MDEQ provided that the NOI package is complete. The MDEQ may deny coverage under the General Permit if the project does not comply with terms and conditions of the permit or based on the criteria of ARM 17.30.1341(4). The operator may terminate coverage under the General Permit after the site has achieved 70 percent of the pre-disturbance vegetative coverage. MDEQ provided confirmation to Fidelity Exploration & Production Company's Notice(s) of Intent and issued storm water discharge permits

MTR101174, MTR101240, MTR101278, and MTR101279. Fidelity requested a modification to Storm Water Permits MTR101278 and MTR101279, on December 2, 2004 and submitted Notice(s) of Intent for Rancholme 21, Rancholme 28 and Rancholme 29, on December 9, 2004. MDEQ has not provided confirmation to the modification requests nor the Notice(s) of Intent.

Storm water authorizations MTR101770 has been issued on May 20, 2005 for the Pond Creek POD and authorization MTR101771 has been issued on April 25, 2005 for the Deer Creek North POD.

MBOGC Earthen Pit or Pond Permit

MBOGC approves permits for the construction and operation of reservoirs/pits designed to store water produced in association with the CBNG wells. The POD proposals have one existing lined off-channel impoundment (23-0299) and one previously approved lined impoundment (44-3490) to be utilized in the water management plan. Fidelity is currently discharging federal, state and fee CBNG produced water to the existing impoundment. The previously approved impoundment, which included a BLM approved monitoring plan, was included in the Badger Hills and Coal Creek POD EAs analysis and decisions. BLM approvals required these impoundments to be in accordance with Federal Onshore Oil and Gas Order No. 7. Fidelity has an MBOGC approved Application For Permit To Construct Or Operate An Earthen Pit Or Pond, dated April 3, 2001 (23-0299) and December 15, 2003 (44-3490).

The Deer Creek North and Pond Creek PODs have several additional lined off-channel impoundments proposed to be utilized in the water management plan.

- 34E-3490; T. 9 S., R. 40 E., SWSE Sec. 34; 17 ac-ft.; private surface/federal mineral; treatment facility storage
- 23-2191; T. 9 S., R. 41 E., NESW Sec. 21; 112 ac-ft.; BLM surface/federal mineral
- 33-2191; T. 9 S., R. 41 E., NWSE Sec. 21; 130 ac-ft.; BLM surface/federal
- 31-2991; T. 9 S., R. 41 E., NWNE Sec. 29; 122 ac-ft.; private surface/federal mineral

Water produced from Federal CBNG wells is proposed to be discharged into these lined impoundments. Thus, BLM approval is required in accordance with Federal Onshore Oil and Gas Order No. 7. Fidelity submitted Application for Permit to Construct or Operate an Earthen Pit or Pond to the MBOGC for the 34E-3490 on August 27, 2004 and the other impoundments on May 23, 2005.

Surface Use Agreement

The operator must certify that an agreement with the private surface owners exists or, in lieu of an agreement, that the requirements of Federal Oil and Gas Onshore Order No. 1 have been met. Fidelity has provided certification of the surface use agreements they have reached. At this time, Fidelity is in negation with Decker Coal/ Montana Royalty on a surface use agreement. Upon completion Fidelity will provide certification.

Water Well Agreement

MBOGC Order 99-99 requires CBNG operators to offer water mitigation agreements to owners of water wells or natural springs within one mile of a producing CBNG field or within the area that the operator reasonably believes may be impacted by a CBNG production operation. Fidelity has provided certification of the agreements they have reached. At this time, Fidelity is in negation with Decker Coal/ Montana Royalty on a Water Well Agreement. Upon completion Fidelity will provide certification.

SHPO Consultation

BLM's approval of the APDs and associated infrastructure developments is considered a Federal Undertaking as defined in Section 106 of the National Historic Preservation Act and its implementing regulations found in 36 CFR 800. BLM's Cultural Resource Program in Montana operates under a National Programmatic Agreement with an implementing protocol with the Montana SHPO. A provision in the protocol provides for case by case review for controversial projects. BLM has consulted with the Montana SHPO under this provision. The BLM has compiled and reviewed all of the cultural resource inventory information pertaining to both PODs and provided the information to the SHPO on May 5 and June 14, 2005. BLM has determined that the proposed Deer Creek North POD and Pond Creek POD would have no adverse effect to historic properties. This determination was based on a lack of direct impacts to eligible

historic properties or mitigation of those impacts and implementation of monitoring condition of approval. The SHPO concurred with BLM's Determination of No Adverse Effect for the Deer Creek North POD on May 18, 2005. The SHPO has concurred with the finding of No Adverse Effect for the Pond Creek POD on June 28, 2005.

Tribal Consultation

The Bureau of Land Management recognizes its responsibilities to consult with the Native Americans in accordance with Section 106 of the National Historic Preservation Act. To that end, 15 Tribal groups consisting of the Northern Cheyenne tribal historic preservation officer, the Crow Cultural Commission, Fort Peck Tribes, Lower Brule Sioux Tribe, Rosebud Sioux Tribe, Pine Ridge Sioux, Cheyenne River Sioux, Eastern Shoshone Tribe, Standing Rock Sioux, Northern Arapahoe Tribe, Blackfeet Tribe, Ft. Belknap Community Council, and the Chippewa-Cree Tribe of the Rocky Boy's Reservation, were sent a letter dated February 9 and 15, 2005, seeking Native American input on the PODs. The letter summarized the proposed undertaking and solicited tribal input on the proposed development.

The Northern Cheyenne Tribe expressed an interest in CBNG development and wished to be consulted further on the projects. A field tour, with the Northern Cheyenne THPO, for the Deer Creek North POD was conducted on April 1, 2005 and a second field tour for the Pond Creek POD was held on April 8, 2005. The Northern Cheyenne indicated the project would not adversely affect tribal cultural historic properties but recommended monitoring of land disturbing actions in Deer Creek North POD. Similar thoughts were expressed at the Pond Creek field tour, but no formal response has been received from the Northern Cheyenne THPO.

The BLM's Miles City Field Office believes it has made a good faith effort to consult by providing ample opportunity for consultation with the Northern Cheyenne and other Tribal interests for consultation on this undertaking.

Previous consultation and in their responses to the Deer Creek North POD, the Northern Cheyenne recommended a tribal representative monitor certain surface disturbing construction activities resulting from POD developments in the vicinity of sites. As a result, a statement was incorporated into the Conditions of Approval (COA), identifying the need for the company to conduct monitoring. The BLM's Miles City Field Office has prepared Conditions of Approval that will become part of the Record of Decision and will be part of approved APDs issued for both PODs.

FWS Consultation

BLM initiated Section 7 Consultation under the Endangered Species Act (50 CFR 402.14) with the US Fish and Wildlife Service (FWS) on Fidelity's proposed PODs. BLM developed a Biological Assessment of impacts to Threatened/Endangered (T/E) species based upon a "may affect, likely to adversely affect" determination for the bald eagle. The FWS returned a Biological Opinion and Concurrence addressing the BLM Biological Assessment (letter dated 08/04/05) with recommendations for protection/mitigation to T/E species, which have been incorporated into the proposed action alternative. The protection measure required consists of an ongoing monitoring program to determine activity status of nesting bald eagles and to assess if CBNG related activity affects that status. Raptor protection for the overhead power lines has been included in the Proposed Action.

A "no effect" determination was made for interior least tern, gray wolf, grizzly bear, pallid sturgeon, Ute ladies' tresses, Montana arctic grayling, and warm spring zaitzavian beetle, and was concurred with by the FWS. No further discussion of these species will occur in this EA. Additionally, a "not likely to adversely affect" determination was made and concurred with for the black-footed ferret.